

## **ABSTRACT**

Pneumonia is major cause of mortality and morbidity in both developing countries and developed countries. It is next to diarrhea among all acute infectious disease in mortality. It affects all age groups. Pneumonia is the major cause of death in children under five years and extremes of age. Pneumonia is more common in immune compromised like Diabetes, HIV and patient with chronic lung disease.

**Aim and Objectives:** The study focuses on Clinical, Radiological and Bacteriological aspects of patients admitted in CMCH with Pneumonia. The objectives of the study are as follows, To know the prevalence of causative microorganism of COMMUNITY ACQUIRED PNEUMONIA in Coimbatore region. Radiological profile of the above patients.

**MATERIALS AND METHODS:** This is a cross sectional study of 50 cases admitted in Coimbatore Medical college hospital was done in the period from July 2016 to June 2017. The cases were evaluated through proper history taking, clinical examination, blood investigation, sputum culture and radiological investigation

**RESULTS-** Cough present almost in all patients. Fever present in nearly all patients. Only few patients had absence of fever, P value – 0.197. Expectoration present in nearly all patients, P value – 0.429. Pleuritic chest pain present in 86% of patients, P value 0.049 More Significant in age >50 years. Haemoptysis present in 16% of patients and absent in 84% Crepitations present in almost all patients 98%. Cyanosis present in 16% of patients, absent in 84%, P value 0.016, More Significant in age >50 years, Bronchial breath sounds present in almost all patients, 96%, P value 0.721,

Altered sensorium present in 6% of patients, absent in 94%, 3 patients aged >50 years had altered sensorium among 28 patients. Age <50 years had no altered sensorium.

Smoking observed in 56% of patients with pneumonia. So smoking is more significant in patients aged >50 years. With p Value 0.033. Smoking and COPD are more common associated risk factors for pneumonia. Alcohol is observed in 44% and absent in 56% of the patients. Alcohol is significant in patients aged >50 years. With p Value 0.010. Diabetes Mellitus is observed in 42% and absent in 58% of the patients. Diabetes Mellitus is significant in patients aged >50 years. With p Value 0.001. Hypertension present in 36% of patients, absent in 64%, COPD is observed in 50% and absent in 50% of the patients. COPD is significant in patients aged >50 years. With p Value 0.001. Sputum culture yield 94% organisms, Blood Culture yield 2% organisms. Smoking, COPD patients affected by gram negative organisms. Right lower lobe and bilateral lung commonly affected. Mean duration of hospital stay 6-8 days.

**Conclusion:** Males affected more than females, Streptococcal pneumonia is the common pathogen causing community acquired pneumonia, Followed by Klebsiella pneumonia observed in this study. E.coli, Pseudomonas and staphylococcus observed in few patients. Gram negative organism common in elderly patient, COPD and in Smokers. Common age group involved are 40 – 60 years. However old age groups mostly affected in pneumonia. Right lung is involved in majority of patients. Patients with comorbid conditions like Diabetes Mellitus are affected by pneumonia. Smoking, COPD and Alcohol are major risk factors, Sputum culture yields organism. Blood

culture yield no organism. Our study will use to identify the common organism in CMCH, and useful for physicians to start empirical treatment.

**KEY WORDS :** Community acquired pneumonia , Sputum culture, Blood culture, Age, Sex, smoking and COPD. Diabetes mellitus.